

DEPARTMENT OF THE AIR FORCE AIR FORCE INSTITUTE FOR OPERATIONAL HEALTH (AFMC) BROOKS CITY-BASE TEXAS

8 Feb 04

MEMORANDUM FOR 72 ABW/CC

FROM: AFIOH/SDR

2350 Gillingham Drive

Brooks City-Base TX 78235-5103

SUBJECT: Consultative Letter, IOH-SD-BR-CL-2004-0005, Radium/Radon Monitoring and Dose Assessment Due to Past Luminous Paint Operations at Tinker AFB OK

1. Introduction: HQ USAF/SG directed the Air Force Institute of Operational Health's Radiation Surveillance Division (AFIOH/SDR) to investigate potential radiation exposures to personnel working in and around buildings that may have previously housed radium painting operations. From 27-31 October 2003, Capt Néstor Ruiz, 1Lt Bruce Murren, SSgt Jennifer Peters, and SSgt Tammy Hintz performed an assessment of residual radioactivity, specifically radium-226 and its progeny (including radon-222). The objective was to ensure compliance with Air Force Instruction (AFI) 48-148, *Ionizing Radiation Protection*, 12 October 2001. The team evaluated external and internal (inhalation and ingestion) personnel radiation exposure pathways within Building 201, the associated infrastructure, and portions of the sanitary and storm sewer systems. Measured radon concentrations and radiation exposure rates in Building 201 did not exceed standards for the general public. Environmental samples (e.g. soils, sewer sediment, water) were not collected and as such, the presence of residual radioactivity in the sewers or inaccessible building infrastructure could not be precluded. However, exposure rates measured in the sewers did not exceed applicable standards for the general public. Monitoring and sampling is required before and/or during any intrusive activities in impacted areas.² Survey methodology, results, conclusions, and recommendations are detailed in the following paragraphs.

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¹ "Residual radioactivity" as defined in NUREG/CR-1575, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), is "radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the cognizant organization's control. This includes radioactivity from all sources used by the cognizant organization, but excludes background radioactivity... It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site..." Technically, radioactivity describes the mean number of nuclear transformations occurring in a given quantity of residual radioactive material per unit time, however "residual radioactivity" will be used in this letter in accordance with the MARSSIM definition. An "impacted" area is an area with "reasonable chance of containing residual radioactivity in excess of natural background or fall-out levels."

² Intrusive activities are those that involve or result in the disturbance of materials at a location known or suspected to contain residual radioactivity. They may result in unwarranted personnel exposures, contamination of other areas, or an environmental release, and can be of an investigative (floor scabbling, pipe investigations, soil sampling/coring, sediment sampling, etc.) or removal (removal of flooring, plumbing, paint, walls, HVAC components, structural components, drains, etc.) action nature.

2. <u>Background:</u> Based on historical records, instrument repair and luminous painting operations using radium paint were conducted in Building 201.³ Similar operations at other Air Force locations revealed residual radioactivity (from radium) in expected areas such as exhaust ventilation systems, waste drains, and floors. The U.S. Army Corps of Engineers conducted a records search in 1989 and indicated that the radium dial painting room was "completely removed" to include ventilation ducts and dry walls. As per the report, the remaining room shell was "tested" to insure that there was no further contamination. In 1996, OHM Remediation Services performed remediation work on the south side of Building 201. Remediation efforts consisted of soil removal and demolition of a concrete ramp. Soil clean up criteria used for unrestricted release was 5.0 pCi/g for radium-226. Building 201 is now occupied by the 72 MSS/DPE and used for training.

3. Instrumentation and Methods:

- a. <u>External Exposure Pathway Assessment:</u> Personnel have potential external exposures to gamma radiation from "fixed" residual radioactivity, if present. Surfaces were scanned with gamma scintillators, and "gamma count rates" measured, to identify elevated radioactivity from residual radioactivity (presumably from radium). The scanning pattern consisted of moving the detector in an "S" motion approximately 12 inches above the surface. For each location of elevated radioactivity, radiation "exposure rates" were measured using pressurized ion chambers. See Attachment 1 for specific instrumentation used.
- b. <u>Internal Exposure Pathway Assessment:</u> Personnel have potential internal exposures to alpha, bet, and/or gamma radiation from inhalation or ingestion of "removable" radioactivity, if present, and/or from inhalation of radon-222 (radium-226 progeny). To determine if removable radioactivity was present, 47 mm-diameter papers were wiped on various surfaces of elevated radioactivity over an area of approximately 100 cm² using moderate pressure and analyzed using laboratory proportional counters. Alpha scintillation probes were also used to measure "alpha count rates" on surfaces of elevated radioactivity. To measure radon concentrations, passive electrets ionization chambers were left at various locations for 1-3 days. In addition, alpha track monitors were left at various locations to measure the average annual radon concentration and will be collected in November 2004 for analysis. See Attachment 2 for alpha track locations.
- c. <u>Background Measurements</u>: To determine if a location is elevated in radioactivity due to residual radioactivity, natural background radiation must be subtracted from the measurements. The background location (Building 1) was chosen due to having similar construction as the impacted areas. The average background radon concentration inside Building 1 was 0.45 ± 0.15 picoCurie per liter of air (pCi/L). The average exposure rate inside Building 1 was 0.013 ± 0.004 milliRoentgen per hour (mR/hr). Average background gamma count rates in and around Building 1 were 6.0 ± 2.4 thousand counts per minute (kcpm) for concrete areas inside and outside, 5.4 ± 2.3 kcpm for vinyl and carpeted areas, and 7.2 ± 2.7 kcpm for grassy areas. Locations were considered elevated in radioactivity if they exceeded Investigation Levels (IL) of twice the average background gamma count rate (error added) for the corresponding surface type. See Attachments 3-5 for background measurements.

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³ AFRPA Briefing, "The Magnificent Seven –Air Depots and Luminous Painting: Learning from the BRAC Experience," Ed Bailey, Booz Allen Hamilton

d. <u>Building 201 Survey Method:</u> Areas of interest inside Building 201 were chosen based on a review of all available drawings. The areas with a high potential of containing residual radioactivity were then scanned. Areas identified with a high potential include wall and floor surfaces; pipe clean outs, floor drains, sinks, or toilets; and any locations containing potentially impacted ventilation system components. Locations were considered elevated if they exceeded ILs of 15.4 kcpm for carpet/vinyl floors, 16 kcpm for concrete floors and 20.0 kcpm for grass/soil areas. Locations close to, or in excess of, the IL were swiped to assess removable residual radioactivity. Exposure rates were measured at 1-meter (health physics standard practice). These 1-meter exposure rate measurements were consistently within the range of natural background radiation random fluctuations and hence indistinguishable. For all impacted locations, we documented exposure rates at contact to provide a worst case. These at-contact measurements become critical information for risk analysis during any remediation activities.

4. Results:

a. External Exposure Pathway Assessment:

(1) *Building 201, Interior:* The average exposure rate inside Building 201 was 0.008±0.003 mR/hr. Measured ambient exposure rate inside the radium room was 0.009 mR/hr. No locations in Building 201 exceeded the ILs as discussed below. See Attachment 3 for gamma radiation data.

Radium Room (Classroom 5): The measured exposure rate was $0.009 \, \text{mR/hr}$. No gamma radiation measurements exceeded the IL.

- (2) Building 201, Exterior Perimeter: The perimeter was scanned within 1-meter of the building for elevated radioactivity. No location exceeded the IL.
- (3) Storm Sewer System and Sanitary Sewer System: Exposure rates of one accessible manhole in front of Building 201 measured between 0.010-0.050 mR/hr both outside and inside. Gamma radiation measurements of the pipes inside the bathrooms located at the north side were indistinguishable from natural background. No sewer lines or storm drains were identified around the northwest side of the building.

b. Internal Exposure Pathway Assessment (Radon and Removable Residual Radioactivity):

(1) Building 201: The average indoor radon concentration ranged from 0.0-6.7 pCi/L over two days, with an average concentration of 1.2±0.2 pCi/L. Inside the radium room the average radon concentration was 0.5±0.2 pCi/L. The maximum concentration of 6.7 pCi/L was measured inside a restroom with poor ventilation and is not representative of an occupational environment. From this short-term data, the average radon concentration in Building 201 does not exceed the action level of 4 pCi/L. All gross alpha, beta, and gamma radioanalysis results reported were below the minimum detectable activity of 0.02 pCi/cm² for gross alpha/beta or 0.5 pCi/cm² for gross gamma. See Attachments 5-6 for E-PERM® data and calculations.

Radium Room (Classroom 5): The average radon concentration measured was 0.5±0.2 pCi/L. Swipe results were negative for removable residual radioactivity and are listed in Attachment 7.

5. Conclusions:

- a. The average exposure rate and radon concentrations inside Building 201 and the radium room do not represent an increased occupational hazard to workers. The average exposure rate of 0.008 mR/hr and annual exposure of 16 mR do not exceed dose limits for the general public of 2 mR in any hour or 100 mR above the average dose received from natural background in a year as specified in AFI 48-148.
- b. Personnel in Building 201 are not exposed internally to residual radioactivity as none was detected.
- c. Short-term radon screening results indicate that personnel in Building 201 are not exposed to elevated concentrations of radon gas. The average building radon screening measurement of 1.2 ± 0.2 pCi/L does not exceed the action level for indoor radon of 4 pCi/L as specified in AFI 48-148, nor does the average radon screening measurement in any room. The only exception, the men's restroom, is not representative of a working environment.
- d. Personnel are not exposed to elevated radioactivity in the grass and paved areas immediately outside Building 201. Historical records indicate that radiological soil surveys and soil remediation efforts were conducted on the south side of Building 201. The historical documents reviewed provided no survey data details specific to either the release or clean up criteria used for the radium room "shell". Therefore, the radium room "shell" should be considered impacted until environmental investigations and/or surveys indicate otherwise.
- e. Personnel are not exposed to elevated radioactivity in storm sewer or sanitary sewer manholes immediately outside Building 201. However, the presence of residual radioactivity beyond the interior of Building 201 (including associated sewer lines) could not be precluded. As such, any disturbance of the infrastructure or sewer lines associated with Building 207 could result in unwarranted personnel exposures, contamination of other areas, or an environmental release.

6. Recommendations:

- a. Restrict any intrusive activities on the floors, walls, and pipes in the radium room. Consult with the installation radiation safety officer (RSO) and contact the USAF Radioisotope Committee (RIC) prior to intrusive activities in these areas to determine if a USAF radioactive material (RAM) permit is necessary, in accordance with AFI 40-201, *Managing Radioactive Materials in the US Air Force*, 1 September 2000. Monitoring and sampling should be conducted before and/or during any intrusive activities in impacted areas.
- b. Update applicable engineering drawings to indicate the potential existence of residual radioactivity in Building 201. Ensure future projects involving Building 201, and any associated residual radioactivity, are coordinated through the installation RSO.

- c. Recommend immediate assessment of Building 201 infrastructure and associated downstream sewer lines to establish follow-on environmental investigation requirements, remediation requirements, and/or access restrictions, for potentially impacted locations. Environmental investigations will identify the presence and extent of any further residual radioactivity; help determine applicable local, state, and federal regulatory requirements; and guide remediation efforts. The presence of residual radioactivity may require restrictions/controls to prevent unwarranted personnel exposures, contamination of other areas, or an environmental release.⁴
- d. AFIOH surveys of three other former luminous paint facilities found residual radioactivity in each of their associated infrastructure and sewers. These normally inaccessible areas were not sampled during this survey, therefore, the sanitary and storm sewer systems should be considered impacted until environmental investigations or surveys indicate otherwise.
- e. Notify the USAF RIC if any further residual radioactivity is found to ensure compliance with Air Force radioactive material permit requirements.
- f. Any items removed that resulted from radiological remediation efforts must be properly screened and, if necessary, disposed as low level radioactive waste in accordance with AF instructions, and all applicable State or Federal regulations.
- g. Perform a radiological survey for Building 201 in accordance with U.S. Nuclear Regulatory Commission NUREG 1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," prior to building demolition or deed transfer (e.g. base closure).
- h. If further guidance is needed on environmental investigations, radiological remediation efforts, or radioactive waste disposal, contact the Environmental Health Physics Branch (AFIOH/SDRE) at DSN 240-3486.
- i. Collect alpha track monitors in November 2004 and submit to RSSI, Inc. for analysis along with the five control blank alpha tracks. RSSI will send the results to AFIOH/SDR for compilation. AFIOH/SDR will send a report with the results to the base at that time.

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⁴ The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires actions be taken to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Radium is listed in the 2003 CERCLA Priority List of Hazardous Substances. The Agency for Toxic Substances and Disease Registry (ATSDR), in conjunction with the Environmental Protection Agency (EPA), developed the listing to specify those hazardous substances that pose the most significant potential threat to human health due to their known or suspected toxicity and potential for human exposure at sites listed on the designated National Priorities List.

7. AFIOH/SDR thanks the 72 AMDS/SGPB and 72 MSS/DPE for their support and help which resulted in an enjoyable and productive survey. If you have questions or need further assistance, please contact Maj Craig Bias or Capt Néstor A. Ruiz at DSN 240-3486, (210) 536-3486, or the ESOH Service Center at 1-888-232-ESOH.

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SCOTT M. NICHELSON, Lt Col, USAF, BSC, CHP, CIH Chief, Radiation Surveillance Division

Attachments:

- 1. Survey Instrumentation
- 2. Alpha-Tracks (long term radon monitoring) location list
- 3. Gamma radiation survey background data & survey map
- 4. Raw data-Pressurized ionization chamber
- 5. Raw data- E-PERM®
- 6. E-PERM® calculation results
- 7. Swipe sample results

cc: AFMSA/SGPR HQ AFMC/SGPB HQ AFMC/CEV HQ USAF/ILEV 72 AMDS/SGPB AFRPA/EV

Survey Instrumentation

Manufacturer	Model No.	Serial No.	Calibration Date	Type/Purpose
Victoreen/Inovision	450P	2647	Jul 03	Pressurized Ion
				Chamber/Ambient
				Exposure Rate
77' 4 /7 1 4				measurements
Victoreen/Inovision	450P	2622	Jun 03	Pressurized Ion
				Chamber/Ambient
				Exposure Rate
D 1 121 x				measurements
Rad Elec Inc.	E-PERM®	0892	Aug 03	Short-Term Electrets
				Ion Chamber and
				Reader/ Radon
D - 1 E1 T	E 5(R)			Monitor
Rad Elec Inc.	E-PERM®	0878	Aug 03	Short-Term Electrets
		j		Ion Chamber and
				Reader/ Radon
Eberline	E(00/GP)			Monitor
Eberline	E600/SPA-	2518/2225	Jan 03	Survey meter with
	3 probe			NaI probe/Direct
				gamma radiation
Eberline	E(00/GDA	2526/2222		measurements
Ebernie	E600/SPA-	2526/2223	Jan 03	Rate meter with NaI
	3 probe			probe/Direct gamma
				radiation
femto – TECH,	CRM-510	CD1 (5105400		measurements
INC.	CRM-510	CRM5105422	Sep 03	Pulsed Ion
IIVC.				Chamber/Continuous
femto – TECH,	CRM-510	CDN45105405		Radon Monitoring
INC.	CRM-510	CRM5105425	Sep 03	Pulsed Ion
INC.				Chamber/Continuous
				Radon Monitoring

water is comme	Alpha Tracks Location	
Serial #	Location	Start Test
149775	Building 1, Room 112	10/28/03 10:20
149721	Building 1, Room 114	10/28/03 10:10
149772	Building 1, Room 114	10/28/03 10:04
149766	Building 1, Room 112	10/28/03 10:25
149760	Building 1, Room 113	10/28/03 11:00
149770	Building 1, Room 112	10/28/03 10:30
149765	Building 1, Room 114	10/28/03 9:58
149769	Building 201, Classroom 2	10/28/03 13:00
149723	Building 201, Men Restroom Snack Area	10/28/03 13:45
149722	Building 201, Room 8	10/28/03 14:36
149756	Building 201, Room 6	10/28/03 13:28
149767	Building 201, Room 8	10/28/03 14:30
149763	Building 201, Women Restroom Snack Area	10/28/03 13:49
149752	Building 201, Room 12	10/28/03 14:55
149754	Building 201, Room 12	10/28/03 14:53
149755	Building 201, Room 13	10/28/03 13:52
149720	Building 201, Room 10	10/28/03 16:30
149718	Building 201, Room 4	10/28/03 16:00
149716	Building 201, Room 17	10/28/03 15:55
149717	Building 201, Room 105, mail room	10/28/03 15:45
149757	Building 201, Room 14	10/28/03 15:25
149711	Building 201, Room 14	10/28/03 15:15
149724	Building 201, Room 22	10/28/03 15:40
149771	Building 201, Mr B Office	10/28/03 12:55
149768	Building 201, Room 3	10/28/03 13:10
149761	Building 201, Room 7	10/28/03 13:30
149764	Building 201, Room 11	10/28/03 14:18
149759	Building 201, Room 13	10/28/03 13:55
149773	Building 201, Room 1	10/28/03 14:45
149774	Building 201, Classroom 5	10/28/03 13:20
149725	Building 201, Room 11	10/28/03 14:05

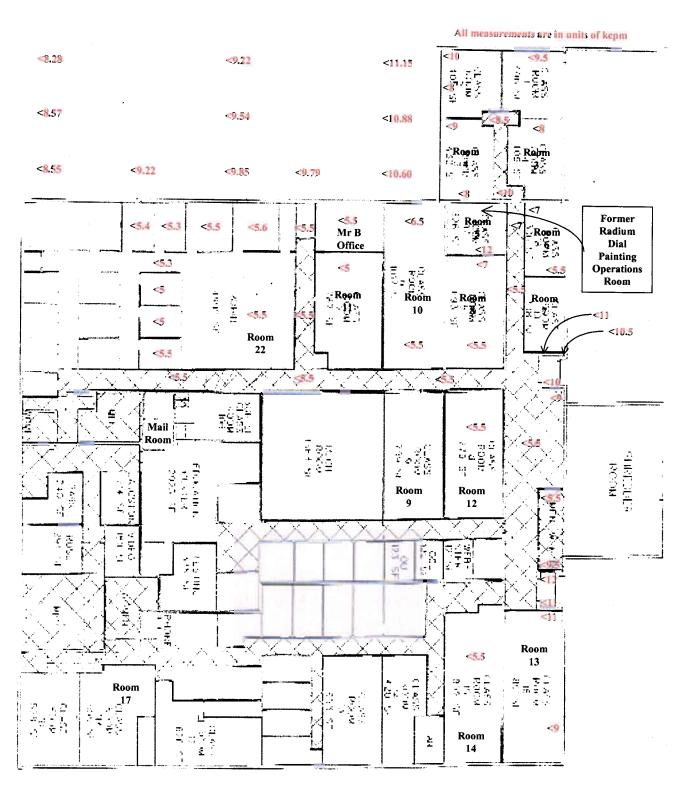
Gamma Radiation Direct Readings Survey -Background (Building 1)

(Detector to surface distance =28.5 cm)

(Instrument-to instrument variation was negligible and within the error range)

	Inside	Outside	Outside
	Over Carpet	Over Concrete	Over Grass
	kCPM	kCPM	kCPM
	5.40	5.99	7.22
	5.37	5.92	7.39
	5.43	5.84	7.19
	5.49	5.84	7.30
	5.25	5.91	7.19
	5.35	5.97	7.01
	5.39	5.86	7.24
	5.38	6.02	7.19
	5.35	5.90	7.19
	5.37	5.82	7.28
Average	5.38	5.91	7.22
Error	±2.32	±2.43	±2.69

- 1. Inside the building and over carpets = 5.4 ± 2.3 kcpm, IL=15.4 kcpm
- 2. Outside the building and over concrete = 5.9 ± 2.4 kcpm, IL=16.6 kcpm
- 3. Outside the building and over grass = 7.2±2.7 kcpm, IL=19.8 kcpm



Pressurized Ion Chamber – Ambient Exposure (Instrument-to instrument variation was negligible and within the error range)

	Background μR/hr
	10.0
	15.0
	25.0
	10.0
	2.0
	12.0
	15.0
Average	12.71
Error	±3.6

	Building 201
11.0	6.0
8.0	6.0
9.0	5.0
12.0	7.0
8.0	16.0
5.0	9.0
6.0	8.0
7.0	7.0
9.0	8.0
5.0	9.0
4.0	8.0
7.0	6.0
7.75	

Average Error ±2.8 Raw Data, Tinker AFB OK

149775 SAW120 149721 SAW036 149772 SAW083	733	6					
SAW036 SAW083		87/	Building 1, Room 112	10/28/03 10:20	10/30/03 11:21	10.00	Background
SAW083	733	729	Building 1, Room 114	10/28/03 10:10	10/30/03 11:27	15.00	Background
	735	729	Building 1, Room 114	10/28/03 10:04	10/30/03 11:25	25.00	Background
SAV979	737	732	Building 1, Room 112	10/28/03 10:25	10/30/03 11:30	10.00	Background
SAV954	738	733	Building 1, Room 113	10/28/03 11:00	10/30/03 11:28	2.00	Background
SAV934	749	744	Building 1, Room 112	10/28/03 10:30	10/30/03 11:28	12.00	Background
SAV958	752	745	Building 1, Room 114	10/28/03 9:58	10/30/03 11:25	15.00	Background
SAW079	735	727	Building 201, Classroom 2	10/28/03 13:00	10/30/03 9:43	11.00	Survey
SAV923	741	712	Building 201, Men Restroom Snack Area	10/28/03 13:45	10/30/03 9:52	8.00	Survey
SAV923	738	732	Building 201, Room 8	10/28/03 14:36	10/30/03 10:10	9.00	Survey
SAV996	728	719	Building 201, Room 6	10/28/03 13:28	10/30/03 9:40	12.00	Survey
SAW054	733	725	Building 201, Room 8	10/28/03 14:30	10/30/03 10:10	8.00	Survey
SAV984	747	739	Building 201, Women Restroom Snack Area	10/28/03 13:49	10/30/03 9:53	5.00	Survey
SAW074	751	747	Building 201, Room 12	10/28/03 14:55	10/30/03 9:38	00.9	Survey
SAW088	716	902	Building 201, Room 12	10/28/03 14:53	10/30/03 9:35	7.00	Survey
SAW110	737	732	Building 201, Room 13	10/28/03 13:52	10/30/03 9:50	9.00	Survey
SAV881	704	969	Building 201, Room 10	10/28/03 16:30	10/30/03 9:55	5.00	Survey
SAV822	719	712	Building 201, Room 4	10/28/03 16:00	10/30/03 9:40	4.00	Survey
SAV850	722	716	Building 201, Room 17	10/28/03 15:55	10/30/03 10:03	7.00	Survey
SAW042	741	729	Building 201, Room 105, mail room	10/28/03 15:45	10/30/03 10:03	6.00	Survey
SAV771	734	730	Building 201, Room 14	10/28/03 15:25	10/30/03 9:50	00.9	Survey
SAV686	723	720	Building 201, Room 14	10/28/03 15:15	10/30/03 9:50	6.00	Survey
SAV794	731	724	Building 201, Room 22	10/28/03 15:40	10/30/03 10:03	5.00	Survey
SAW093	725	719	Building 201, Mr B Office	10/28/03 12:55	10/30/03 10:00	7.00	Survey
SAW076	717	708	Building 201, Room 3	10/28/03 13:10	10/30/03 9:44	16.00	Survey
SAW037	741	734	Building 201, Room 7	10/28/03 13:30	10/30/03 9:54	9.00	Survey
SAW060	732	726	Building 201, Room 11	10/28/03 14:18	10/30/03 10:07	8.00	Survey
SAW122	745	741	Building 201, Room 13	10/28/03 13:55	10/30/03 9:50	7.00	Survey
SAV944	711	705	Building 201, Room 1	10/28/03 14:45	10/30/03 9:42	8.00	Survey
SAV947	743	738	Building 201, Classroom 5	10/28/03 13:20	10/30/03 9:45	00.6	Survey
SAV982	735	731	Building 201, Room 11	10/28/03 14:05	10/30/03 10:07	8.00	Survey

Attachment 5, 1 of 1

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Electret#	et# Location	Purpose	N	FV	StartTest	Finish Test	Days	Camma	CF	Radon	(+/-) pCi/L
SAWI	SAW120 Building 1, Room 112	Background	733	728	10/28/03 10:20	10/30/03 11:21	2.04	8.87	2.1172	0.4	0.1
SAWC	SAW036 Building 1, Room 114	Background	733	729	10/28/03 10:10	10/30/03 11:27	2.05	8.87	2.1175	0.1	0.1
SAWC	SAW083 Building 1, Room 114	Background	735	427	10/28/03 10:04	10/30/03 11:25	2.06	8.87	2.1181	9.0	0.2
SAV9	SAV979 Building 1, Room 112	Background	737	732	10/28/03 10:25	10/30/03 11:30	2.05	8.87	2.1195	0.4	0.1
SAV9	SAV954 Building 1, Room 113	Background	738	733	10/28/03 11:00	10/30/03 11:28	2.02	8.87	2.1201	0.4	0.2
SAV9	SAV934 Building 1, Room 112	Background	749	744	10/28/03 10:30	10/30/03 11:28	2.04	8.87	2.1264	0.4	0.1
SAV9	SAV958 Building 1, Room 114	Background	752	745	10/28/03 9:58	10/30/03 11:25	2.06	8.87	2.1275	8.0	0.2
	esterni								Average	0.45	0.15
SAW0	SAW079 Building 201, Classroom 2	Survey	735	727	10/28/03 13:00	10/30/03 9:43	1.86	8.87	2.1175	1.3	0.2
SAV9	SAV923 Building 201, Men Restroom Snack Area	Survey	741	712	10/28/03 13:45	10/30/03 9:52	1.84	8.87	2.1149	6.7	0.5
SAV9	SAV923 Building 201, Room 8	Survey	738	732	10/28/03 14:36	10/30/03 10:10	1.82	8.87	2.1198	8.0	0.2
SAV9	SAV996 Building 201, Room 6	Survey	728	719	10/28/03 13:28	10/30/03 9:40	1.84	8.87	2.1132	1.5	0.3
SAW0	SAW054 Building 201, Room 8	Survey	733	725	10/28/03 14:30	10/30/03 10:10	1.82	8.87	2.1164	1.3	0.3
SAV9	SAV984 Building 201, Women Restroom Snack Area	Survey	747	739	10/28/03 13:49	55:6 80/08/01	1.84	8.87	2.1244	1.3	0.3
SAW0	SAW074 Building 201, Room 12	Survey	751	747	10/28/03 14:55	10/30/03 9:38	1.78	8.87	2.1278	0.3	0.1
SAW0	SAW088 Building 201, Room 12	Survey	716	902	10/28/03 14:53	10/30/03 9:35	1.78	8.87	2.1060	1.9	0.3
SAWI	SAW110 Building 201, Room 13	Survey	737	732	10/28/03 13:52	05:6 £0/0£/01	1.83	8.87	2.1195	0.5	0.2
SAV8	SAV881 Building 201, Room 10	Survey	704	969	10/28/03 16:30	10/30/03 9:55	1.73	8.87	2.0997	1.4	0.3
SAV8.	SAV822 Building 201, Room 4	Survey	719	712	10/28/03 16:00	10/30/03 9:40	1.74	8.87	2.1086	1:1	0.3
SAV8.	SAV850 Building 201, Room 17	Survey	722	216	10/28/03 15:55	10/30/03 10:03	1.76	8.87	2.1106	8.0	0.2
SAW0	SAW042 Building 201, Room 105, mail room	Survey	741	729	10/28/03 15:45	10/30/03 10:03	1.76	8.87	2.1198	2.4	0.3
SAV771	71 Building 201, Room 14	Survey	734	730	10/28/03 15:25	10/30/03 9:50	1.77	8.87	2.1181	0.3	0.1
SAV6.	SAV686 Building 201, Room 14	Survey	723	720	10/28/03 15:15	10/30/03 9:50	1.77	8.87	2.1120	0.0	0.1
SAV7	SAV794 Building 201, Room 22	Survey	731	724	10/28/03 15:40	10/30/03 10:03	1.77	8.87	2.1155	Ξ	0.2
SAW0	SAW093 Building 201, Mr B Office	Survey	725	719	10/28/03 12:55	10/30/03 10:00	1.88	8.87	2.1123	0.7	0.2
	SAW076 Building 201, Room 3	Survey	717	208	10/28/03 13:10	10/30/03 9:44	1.86	8.87	2.1069	1.5	0.3
	SAW037 Building 201, Room 7	Survey	741	734	10/28/03 13:30	10/30/03 9:54	1.85	8.87	2.1212	0.1	0.2
SAWO	SAW060 Building 201, Room 11	Survey	732	726	10/28/03 14:18	10/30/03 10:07	1.83	8.87	2.1164	8.0	0.2
	SAW122 Building 201, Room 13	Survey	745	741	10/28/03 13:55	10/30/03 9:50	1.83	8.87	2.1244	0.3	0.1
	SAV944 Building 201, Room 1	Survey	711	705	10/28/03 14:45	10/30/03 9:42	1.79	8.87	2.1043	8.0	0.2
	SAV947 Building 201, Classroom 5	Survey	743	738	10/28/03 13:20	10/30/03 9:45	1.85	8.87	2.1230	0.5	0.2
SAV9.	SAV982 Building 201, Room 11	Survey	735	731	10/28/03 14:05	10/30/03 10:07	1.83	8.87	2.1186	0.3	0.1
y i									Average	1.20	0.23

AFIERA/SDRR ID: 40308803 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302837

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

< 2.0E-06 2.0E-06

Microcuries / Swipe

< 5.0E-05

Microcuries / Swipe Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (West wall, middle, paint scraped) Tinker AFB (WPID: 188) Give Results to SDRO Only (SSgt Peters), Do Not Mail

Results To Tinker WW032837

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308804

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302838

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (West wall, middle)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032838

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308805 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140 BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302839 Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

< 2.0E-06 2.0E-06

Microcuries / Swipe Microcuries / Swipe

5.0E-05 Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (West wall, north end, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WW022839

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308806 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302840

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

2.0E-06 2.0E-06

Microcuries / Swipe

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (West wall, north end)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker WWD32840

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308807

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302841

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, north end, below black board, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail
Results To Tinker

WWD3784)

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308808 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140 BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302842

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

< 2.0E-06 2.0E-06

Microcuries / Swipe

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, north end, below black board)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker WW032847

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308809

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302843

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 04-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

2.0E-06 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, north end center, below black board, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker WWO32843

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308810 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140

IDENTIFICATION:

Base Sample # WW0302844

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

BROOKS AFB TX, 78235-5103

< 2.0E-06 < 2.0E-06 Microcuries / Swipe Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

< 5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, north end center, below black board)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not
Mail Results To Tinker WW 032844

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308811 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140 BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302845

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(\mathbf{s})

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

< 2.0E-06

Microcuries / Swipe Microcuries / Swipe

< 2.0E-06 5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, south end center, below black board, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308812

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302846

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

< 2.0E-06

Microcuries / Swipe

< 2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, south end center, below

black board)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not
Mail Results To Tinker

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If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308813

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302847

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA < 2.0E-06 < 2.0E-06

Microcuries / Swipe

< 5.0E-05

Microcuries / Swipe Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, south end, below black board, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not
Mail Results To Tinker

WW032847

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308814

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302848

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

< 2.0E-06

Microcuries / Swipe Microcuries / Swipe

2.0E-06

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (East wall, south end, below black board)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail

Results To Tinker

WW032848

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308815

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302849

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

< 2.0E-06 < 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

< 5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (South-East corner)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032849

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308816 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302850

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 08-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (South-East corner, indention)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail

Results To Tinker

WW032850

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308817

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302851

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

< 2.0E-06

2.0E-06 5.0E-05

Microcuries / Swipe Microcuries / Swipe

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 18 (Old mechanical room, old concrete)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032851

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308818

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302852

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 12-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

1.7E-06 +/- 4.0E-07 Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, East Entry (East wall, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail

Results To Tinker

WW03852

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308819

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BROOKS AFB TX, 78235-5103

BLDG 140

IDENTIFICATION:

Base Sample # WW0302853

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

< 2.0E-06 < 2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, East Entry (East wall)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW03853

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308820

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302854

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, East Entry (West wall)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail

Results To Tinker

WW03285A

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308821

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302855

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

< 2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, East Entry (West wall, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW03255

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308822

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302856

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA < 2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, West Entry (East wall)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW03250

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308823

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302857

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA < 2.0E-06

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, West Entry (East wall, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032857

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308824

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302858

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06 < 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, West Entry (West wall, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WW032858

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308825

Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302859

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

< 2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, West Entry (West wall)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032859

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308826 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BROOKS AFB TX, 78235-5103

BLDG 140

IDENTIFICATION:

Base Sample # WW0302860

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA

2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 13

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032860

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308827 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302861

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

< 2.0E-06

Microcuries / Swipe

2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 18 (Old mechanical room, old concrete,

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW03Z801

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308828 Customer Address Code: 000253A AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302862

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06 < 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 1, Floor

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032862

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308829 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BROOKS AFB TX, 78235-5103

BLDG 140

IDENTIFICATION:

Base Sample # WW0302863

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06 2.0E-06 Microcuries / Swipe

EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 1, Concrete

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WW032863

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308830 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302864

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

< 2.0E-06 < 2.0E-06 Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 1, Wallpaper

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WN03286A

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308831 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE

BLDG 140 BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302865 Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA EPA CODE N/A GROSS GAMMA

< 2.0E-06 < 2.0E-06

Microcuries / Swipe Microcuries / Swipe

< 5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 1, Sheetrock Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WWOZZ8GE

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308832 Customer Address Code: 000253A

AFIERA/SDRH 2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302866

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS BETA

< 2.0E-06

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 5 (West wall, south end) Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WW0328700

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308833 Customer Address Code: 000253A

AFIERA/SDRH 2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302867

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA

EPA CODE N/A GROSS BETA

< 2.0E-06 < 2.0E-06 Microcuries / Swipe

Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 1 (West wall, under black board)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker

WW037867

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308834 Customer Address Code: 000253A AFIERA/SDRH 2350 GILLINGHAM DRIVE BLDG 140 BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302868 Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

< 2.0E-06 2.0E-06 Microcuries / Swipe

EPA CODE N/A GROSS GAMMA

Microcuries / Swipe

5.0E-05

Microcuries / Swipe

COMMENTS:

Bldg 201, Rm 1 (West wall, under black board, paint scraped)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not Mail Results To Tinker WW032868

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.

AFIERA/SDRR ID: 40308835 Customer Address Code: 000253A

AFIERA/SDRH

2350 GILLINGHAM DRIVE

BLDG 140

BROOKS AFB TX, 78235-5103

IDENTIFICATION:

Base Sample # WW0302869

Workplace or Site ID: 188 TINKER AFB

DATE COLLECTED: 24-NOV-2003 RECEIVED: 25-NOV-2003 COMPLETED: 09-DEC-2003

Sample Volume Received: 1 SWIPE(s)

EPA CODE N/A GROSS ALPHA EPA CODE N/A GROSS BETA

EPA CODE N/A GROSS GAMMA

2.0E-06

Microcuries / Swipe

2.0E-06

< 5.0E-05

Microcuries / Swipe

Microcuries / Swipe

COMMENTS:

Bldg 201, Mr. Bean's Office (East wall, north end)

Tinker AFB (WPID: 188)

Give Results to SDRO Only (SSgt Peters), Do Not

Mail Results To Tinker

WW032869

If you have any questions concerning the information provided above, please contact AFIERA/SDRR at DSN 240-2061 or commercially at (210) 536-2061 or call ESOH Service Center at 1 888 232-3764.